NOAA Marine Science Career - Case Studies

Ian Morrison - Incident Meteorologist

National Weather Service Hawaii

We interviewed our friend Ian Morrison, who is an Incident Meteorologist for the National Weather Service here in Honolulu, Hawaii.

An incident meteorologist is a specially trained meteorologist who provides site specific weather forecasts and information at an incident, like a wild fire for example. Ian shares with us why he became interested in the field of meteorology.

What sparked your interest in meteorology?

Since I can remember, weather has always been a big interest of mine. Growing up on the coast of Massachusetts I witnessed the effects of weather on the ocean first hand. One of my favorite things was when big storms like blizzards and hurricanes would blow in. Even though I had no idea exactly how the weather affected the ocean I was still fascinated by its power, which sparked many questions for me. Those questions and my passion for learning more about weather drew me into the field of meteorology.

How can I become a meteorologist?

If you want to be a meteorologist, you need to do well in school now, in order to create strong study habits for future classes. A strong background in math and science is required to study meteorology.
When it's time for college, there are many schools, including the University of Hawaii, that have undergraduate meteorology programs.

Can you tell us briefly about the water cycle in Hawaii?

The Hawaiian Islands are surrounded by water, and that water moves through a never-ending cycle all the time. We can see this cycle happening all around us. Under normal circumstances, late night and early morning skies have the fewest clouds. As the sun heats up the islands, the cloud cover increases gradually throughout the day. The heating from the sun helps to evaporate water from the ocean into water vapor, which is water in its gaseous state (evaporation). The water vapor is lifted up into the atmosphere by the newly heated rising air. As that water vapor rises, the air temperature cools, and that water vapor is transformed back into liquid water, in the form of little tiny water droplets (condensation). Those water droplets are called clouds. As the clouds grow thicker and thicker, the water droplets get bigger and bigger until they form rain drops, and finally fall to the ground (precipitation). The rain drops then seep into the ground to become ground water or run off and flow back into the ocean (infiltration). With that, the water cycle has gone around full circle, ready to begin again. So just by looking outside we can see the entire water cycle in action!